



LAND USE CONTROL IMPLEMENTATION PLAN
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
KENNEDY SPACE CENTER
BREVARD COUNTY, FLORIDA



FACILITY: Component Cleaning Facility
 Solid Waste Management Unit No. 30

CONTAMINANTS: VOCs and SVOCs in Groundwater

CONTROL: Prohibit Use of Groundwater

PURPOSE OF LAND USE CONTROL IMPLEMENTATION PLAN

This Land Use Control Implementation Plan (LUCIP) has been prepared to inform current and potential future users of the Component Cleaning Facility (CCF) of institutional controls that have been implemented at the site¹. Institutional land use controls (LUCs) are necessary to prohibit groundwater use at the site. Controls will include periodic inspection, condition certification and agency notification.

WHY LAND USE CONTROLS ARE NEEDED

Human health and ecological risk assessments were completed as part of a Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI). Chemicals of concern identified for human health risk during the RFI and supplemental sampling activities that exceeded Florida Department of Environmental Protection (FDEP) and Environmental Protection Agency (EPA) cleanup target levels include

volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) in groundwater.

SITE DESCRIPTION

The CCF is a NASA-operated facility comprising approximately 14 acres that originally was used for converting liquid nitrogen to nitrogen gas, which was then piped to launch pads. NASA later established a component refurbishment (cleaning) facility at the CCF. The CCF consisted of several operations that were conducted in facility buildings including equipment maintenance and cleaning, laboratory analyses, industrial water treatment, water deionization, freon storage and reclamation, compressed gas loading, charging, and bottle storage, clean components and equipment storage, dry chemical storage, and hazardous waste staging. All operations at the CCF were suspended in November 2001 to facilitate the environmental cleanup effort. Based on the history of operations at the SWMU, suspected sources of contamination include discharges to ditches from underground

1. This LUCIP summarizes institutional controls regarding the NASA KSC Component Cleaning Facility (CCF). For detailed information on the site, consult the CCF administrative file, which is available for review by contacting the KSC Environmental Program Office at telephone number (321) 867-8411.

wastewater sumps, and runoff from the site and adjacent roadways.

SITE LOCATION

The CCF facility is north of the crawlerway and Saturn Causeway and between the Vehicle Assembly Building and the launch complexes at Kennedy Space Center, Florida (Figure 1). The CCF area covered by this LUCIP is situated predominantly north of the north crawler track with a smaller portion south of the track (Figure 2). The site is located within Section 8 of Township 22 South, Range 37 East of the Orsino Quadrangle. The groundwater use control area is roughly rectangular in shape and is approximately 22.3 acres in size (Figure 2). Coordinates of the corners of the LUCs are provided in Figure 2 in the State Plane Coordinate System NAD 1983 meters, Florida East.

SITE CONTAMINATION AND CONTROL

Groundwater within the site boundary contains VOCs and SVOCs at concentrations above the FDEP's groundwater cleanup target levels. LUCs are therefore required to prohibit the use of groundwater. Indoor air quality shall be evaluated prior to any construction within

the groundwater use control area.

DECISION DOCUMENT

A Statement of Basis (SB) establishes institutional controls as a component of the remedy for this site. The SB for the site, KSC document number KSC-TA-5672, is available for review by contacting the KSC Environmental Program Office at telephone number (321) 867-8411.

IMPLEMENTATION

Institutional controls will be implemented by the KSC Environmental Program Office in accordance with their RCRA permit and Land Use Control Assurance Plan included in a Memorandum of Agreement (MOA)² between NASA, FDEP, and EPA, effective February 23, 2001. Upon approval of this LUCIP, it will be incorporated into the permit by reference. Property transfer (if conducted in the future) will be conducted in accordance with Section X of the MOA.

KSC's Environmental Program Office will provide KSC's Master Planning Office with survey coordinates of the LUCs. Restrictions will specify limitations on development and reuse for the area for as long as LUCs are necessary to protect human health and the environment.

2. By separate MOA effective February 23, 2001, with the EPA and FDEP, KSC, on behalf of NASA, agreed to implement Center-wide, certain periodic site inspection, condition certification and agency notification procedures designed to ensure the maintenance by Center personnel of any site-specific LUCs deemed necessary for future protection of human health and the environment. A fundamental premise underlying execution of that agreement was that through the Center's substantial good faith compliance with the procedures called for herein, reasonable assurances would be provided to EPA and FDEP as to the permanency of those remedies which included the use of specific LUCs.

Although the terms and conditions of the MOA are not specifically incorporated or made enforceable herein by reference, it is understood and agreed by NASA KSC, EPA and FDEP that the contemplated permanence of the remedy reflected herein shall be dependent upon the Center's substantial good faith compliance with the specific LUC maintenance commitments reflected herein. Should such compliance not occur or should the MOA be terminated, it is understood that the protectiveness of the remedy concurred in may be reconsidered and that additional measures may need to be taken to adequately ensure necessary future protection of human health and the environment.

MONITORING

Quarterly inspections to monitor that institutional controls specified herein are in place and operating will be conducted by KSC's Environmental Program Office. The inspection will verify that no groundwater use is occurring.

REPORTING

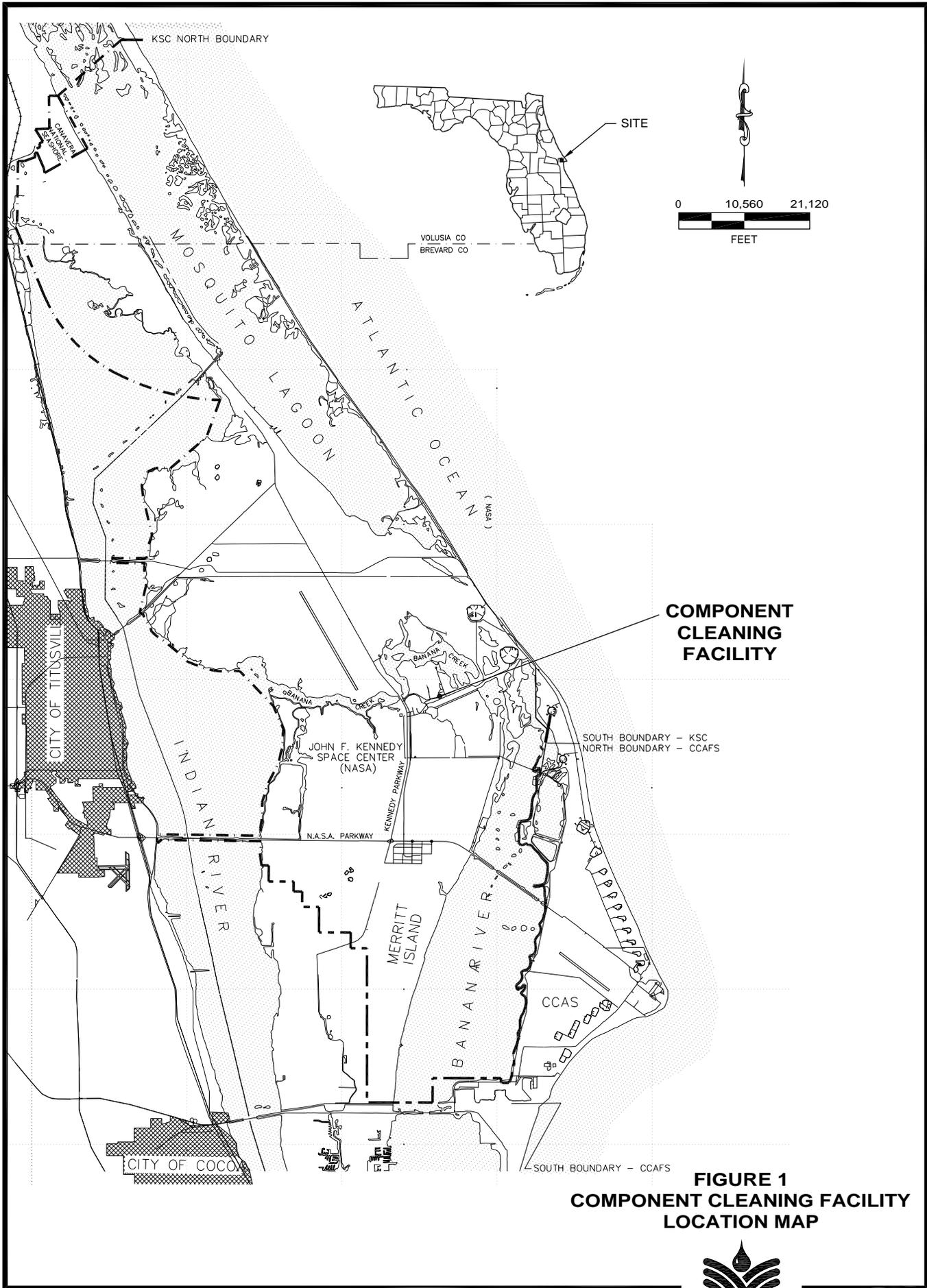
KSC's Environmental Program Office will submit annual reports to EPA and FDEP certifying retention of the implemented LUCs.

ENFORCEMENT

KSC's Environmental Program Office will be responsible for stopping any activities at KSC that are not compliant with this LUCIP.

MAINTENANCE

This LUCIP will remain in place until a land use change is implemented and the concerns managed by the LUCIP are mitigated; or there is a discovery, based upon analytical evidence, that scenarios managed by the LUCIP are no longer a concern. Any change in LUC management must be approved by EPA and FDEP and implemented by modification of NASA's operating permit.



**FIGURE 1
COMPONENT CLEANING FACILITY
LOCATION MAP**



